IN THE SPECIFICATION:

Please amend the paragraph starting at page 2, line 11, and ending at line 26, as follows.

--In conventional birefringence measuring apparatuses as described above, the state of polarization of light from a sample is measured plural times while changing the polarization of light impinging on the sample, and the birefringence of the sample is measured on the basis of the results of plural measurements. In conventional birefringence measuring apparatuses, although some of them use a rotary element at a side receiving polarized light from a sample while ~~the other~~ others do ~~does~~ not use such element, ~~anyway~~ there is a rotary element or the like at a light entrance side of the sample that must be rotated to change the polarization of light impinging on the sample. As a result, a long time is required to complete the birefringence measurement.--

Please amend the paragraphs starting at page 3, line 14, and ending at page 5, line 21, as follows.

--In accordance with an aspect of the present invention, there is provided a birefringence measuring apparatus, comprising: a light projecting unit for projecting approximately circularly polarized light upon a sample; a Stokes meter for detecting a state of polarization of light from the sample; and calculating means for calculating birefringence of the sample on the basis of a Stokes parameter from ~~said~~ the Stokes meter.

In accordance with another aspect of the present invention, there is provided a birefringence measuring apparatus, comprising: a light projecting unit for projecting approximately circularly polarized light upon a sample; a plurality of light receiving portions for detecting a light quantity of light from the sample; and calculating means for determining a Strokes parameter on the basis of detected values at ~~said~~ the plurality of light receiving portions, and for detecting birefringence of the sample on the basis of the Stokes parameter.

In accordance with a further aspect of the present invention, there is provided a birefringence measuring apparatus, comprising: a light projecting unit for projecting approximately circularly polarized light upon a sample; a plurality of light receiving portions for detecting a light quantity of light from the sample; a memory for memorizing birefringence measured by ~~said~~ the birefringence measuring apparatus without a sample; and calculating means for detecting birefringence of the sample on the basis of detected values at ~~said~~ the plurality of light receiving portions and the birefringence memorized by ~~said~~ the memory.

In accordance with a yet further aspect of the present invention, there is provided a birefringence measuring apparatus, comprising: light projecting means for projecting approximately circularly polarized light upon a sample; at least one dividing unit for dividing output light from the sample into two light beams having the same polarization state; at least one polarizer; at least one phase-difference plate; at least two light receiving portions; and calculating means for calculating a quantity of received light at ~~said~~ the at least two light receiving portions.

In accordance with a still further aspect of the present invention, there is provided a birefringence measuring apparatus, comprising: light projecting means for projecting approximately circularly polarized light upon a sample; at least one dividing unit for dividing output light from the sample into two light beams having the same polarization state; at least one polarizer; at least four light receiving portions; and calculating means for calculating a quantity of received light at ~~said~~ the at least four light receiving portions, wherein the birefringence of the sample is measured without rotating the sample and ~~said~~ the at least one polarizer.--

Please amend the paragraphs starting at page 10, line 14, and ending at page 12, line 9, as follows.

--Light from the light source 101 passes through the polarization prism 102 whereby it is transformed into linearly polarized light. Thereafter, the light goes through the quarter phase plate 103 having a phase advance axis tilted by +45 deg. with respect to a horizontal axis, by which the incident light 104 is transformed into a clockwise circular polarization light. Here, the light source 101, the polarization prism 102 and the quarter phase plate 103 constitute a light projecting unit. A circularly polarized light from this light projecting unit is incident on a sample 105. Under the influence of birefringence of the sample 105, the output light 106 emerging from the sample 105 is generally elliptically polarized light, and it enters the dividing unit 107. The output light is divided thereby into a first light beam being reflected under the same polarization state as the output light 106 and a second light beam being transmitted under the same polarization state as the output

light 106. The first light beam enters a dual-beam type Glan-Thompson prism 109 whereby it is divided into two light beams being polarized orthogonally. The divided light beams are then incident on the light receiving portions 110 and 111, respectively. The second light beam transmitted through the dividing unit 107 furthermore enters the dividing unit 108 whereby it is divided into a third light beam being reflected again under the same polarization state as the output light 106 and a fourth light beam being transmitted under the same polarization state as the output light 106. The third light beam is then incident on a ~~single-beam type~~ single-beam-type Glan-Thompson prism 112 having its transmission axis rotated by and fixed at +45 deg. such that a +45 deg. linear polarization component is received by the light receiving portion 113. The fourth light beam is incident on a quarter ($\lambda/4$) phase difference plate 114 having its advance axis rotated by and fixed at +45 deg., and thereafter it is incident on a ~~single-beam type~~ single-beam-type Glan-Thompson prism 115 having its transmission axis fixed at 90 deg., such that only the transmitted polarization component is detected by the light receiving portion 116. On the basis of the detected values of light quantities as detected by the light receiving portions 110, 111, 113 and 116, the computing circuit 117 ~~calculates~~ performs a calculation to detect the Strokes parameters. --

Please amend the paragraph starting at page 12, line 18, and ending at line 26, as follows.

--Denoted at 201 is incident light, and denoted at 204, 205 and 206 are plain parallel plates ~~being~~ disposed so that light is incident thereon with an angle 45 deg.

Denoted at 202 is a first light beam reflected twice by two plane parallel plates, and denoted at 203 is a light beam transmitted through both of two plane parallel plates. Denoted at 207 and 208 are unwanted light, not used in this embodiment.--

Please amend the paragraph starting at page 24, line 10, and ending at page 25, line 7, as follows.

--A sixth embodiment of the present invention is an example wherein the apparatus of the fifth embodiment is applied to a circular sample. By rotation, a circular measurement region is provided. In Figure 4, denoted at 401 is a sample, and denoted at 402 is a linear-shape measurement region. Denoted at 403 is the sample rotating direction, and denoted at 404 is the center of rotation. The linear-shape measurement region is defined along a radial direction from the rotational center of the sample and, by rotating the sample about the rotational center 404, a two-dimensional distribution of birefringence of the sample is measured. This is suitable to birefringence measurement of a rotating disk. Relative rotation between the sample and the measurement region is a ~~requisition~~ requirement, in this example. Therefore, if rotation of the sample is undesirable, the sample may be held fixed and the light projecting portion and the light receiving portion may be rotated. This enables measurement of a two-dimensional distribution of the birefringence amount of a circular sample and the advance axis angle, without rotating the sample.--